

CLAIMS

- 1 Microcapsules with mean diameters of 0.1 to 5 mm consisting of a membrane and a matrix containing at least one active principle and obtainable by
- 5
- (a) preparing a matrix from gel formers, chitosans and active principles,
 - (b) dispersing the matrix in an oil phase,
 - (c) treating the dispersed matrix with aqueous solutions of anionic polymers and removing the oil phase in the process.
- 10
2. A process for the production of microcapsules with mean diameters of 0.1 to 5 mm consisting of a membrane and a matrix containing at least one active principle, characterized in that it comprises the steps of
- 15
- (a) preparing a matrix from gel formers, chitosans and active principles,
 - (b) dispersing the matrix in an oil phase and
 - (c) treating the dispersed matrix with aqueous solutions of anionic polymers and removing the oil phase in the process.
- 20
3. A process as claimed in claim 2, characterized in that heteropolysaccharides or proteins are used as gel the formers.
4. A process as claimed in claim 3, characterized in that agaroses, agar agar, pectins, xanthans and mixtures thereof are used as the heteropolysaccharides.
- 25
5. A process as claimed in claim 3, characterized in that gelatine is used as the protein.
6. A process as claimed in at least one of claims 2 to 5, characterized in that chitosans with an average molecular weight of 10,000 to 500,000 or 800,000 to 1,200,000 dalton are used.
- 30
7. A process as claimed in at least one of claims 2 to 6, characterized

in that active principles selected from the group consisting of surfactants, cosmetic oils, pearlizing waxes, stabilizers, biogenic agents, deodorants, antiperspirants, antidandruff agents, UV protection factors, antioxidants, preservatives, insect repellents, self-tanning agents, perfume oils, flavors, bleaching agents, bleach activators, enzymes, redeposition inhibitors, optical brighteners and dyes are used.

8. A process as claimed in at least one of claims 2 to 7, characterized in that salts of alginic acid or anionic chitosan derivatives are used as the anionic polymers.

9. A process as claimed in at least one of claims 2 to 8, characterized in that the microcapsules are charged with 0.1 to 25% by weight, based on their weight, of active principle.

10. A process as claimed in at least one of claims 2 to 9, characterized in that emulsifiers and/or viscosity adjusters are used in the production of the matrix.

11. A process as claimed in at least one of claims 2 to 10, characterized in that the matrix is produced at temperatures of 40 to 100°C.

12. A process as claimed in at least one of claims 2 to 11, characterized in that the matrix is dispersed in 2 to 5 times its volume of the oil phase.

13. A process as claimed in at least one of claims 2 to 12, characterized in that the matrix heated to 40 to 60°C is dispersed in an oil phase cooled to 10 to 20°C.

14. A process as claimed in at least one of claims 1 to 13, characterized in that the matrix dispersed in the oil phase is treated with 0.1 to 3% by weight aqueous solutions of the anionic polymers.

15. A process as claimed in at least one of claims 2 to 14, characterized in that the matrix finely dispersed in the oil phase is treated with the aqueous solutions of the anionic polymers at temperatures of 40 to 100°C.

16. A process as claimed in claim 15, characterized in that the matrix dispersed in the oil phase is washed with aqueous solutions of the anionic

polymers and the oil phase is removed in the process.

17. A process as claimed in claim 16, characterized in that aqueous preparations ultimately containing 1 to 10% by weight of microcapsules are prepared in the washing step.
- 5 18. A process as claimed in at least one of claims 2 to 17, characterized in that the preparations are continuously stirred.
19. The use of the microcapsules claimed in claim 1 for the production of cosmetic and/or pharmaceutical preparations.
20. The use of the microcapsules claimed in claim 1 for the production
10 of laundry detergents, dishwasher detergents, cleaners and softeners.
21. The use of the microcapsules claimed in claim 1 for the production of foods.
22. The use claimed in at least one of claims 19 to 21, characterized in that the microcapsules are used in quantities of 0.1 to 99% by weight,
15 based on the preparations.

Add A3